

IN THE CLAIMS

Claims 1 – 10 are pending in this application with claims 1 – 2 and 7 – 10 being amended by this response. New claims 11 and 12 are added for consideration.

1. (Currently Amended) Process for coding video images according to a non object-based coding standard, said process comprising:

- a step of extraction (1) of at least one video object from an image originating from a sequence of images, by the construction of a segmentation key defining the contours of the object in the image,
- a step of coding (2) the video object according to ~~the MPEG-2~~ said standard so as to form an elementary stream (ES),
- a step of coding (3) the segmentation key relating to the video object, according to ~~the MPEG-2~~ said standard, so as to form an elementary stream,
- a step of coding (5) a background image into which the object is to be inserted, according to ~~the MPEG-2~~ said standard, so as to form an elementary stream,
- a step of multiplexing (4, 6, 7) the elementary streams relating to one or more objects and to the background image so as to provide a programme stream (PS) or transport stream (TS) according to ~~the MPEG-2~~ said standard.

2. (Currently Amended) Process according to Claim 1, said process comprising an additional step of calculating a depth map defining the relative positioning of the video objects in terms of depth, wherein said depth map is coded according to ~~the MPEG-2~~ said standard so as to provide an elementary stream multiplexed with the other elementary streams so as to be transmitted in the data transport stream.

3. (Original) Process according to Claim 2, wherein said depth map is obtained from information originating from a camera providing video images to be coded.

4. (Original) Process according to Claim 1, wherein said coding of the video object is performed by coding the complete image, using only the DC coefficients for the coding of parts of the image other than the object.

5. (Original) Process according to Claim 1, wherein said coding of the video object is performed by coding the complete image, the coding mode for coding the background of the complete image being forced in such a way as to reduce the number of coding bits.

6. (Original) Process according to Claim 5, wherein, in the case of a uniform background, said coding mode for coding the background uses only the DC coefficients.

7. (Currently Amended) Process according to Claim 5, wherein macroblocks relating to the background of the image are detected on the basis of the segmentation key and wherein the "skipped macroblocks" mode of the MPEG 2 standard referenced ISO/IEC 13818-2:1996(E) is forced for the coding of the temporally stationary macroblocks.

8. (Currently Amended) Process according to Claim 5, wherein macroblocks relating to the background of the image are detected on the basis of the segmentation key and wherein the predictive modes of the MPEG 2 standard referenced ISO/IEC 13818-2:1996(E) are used for the coding of the temporally mobile macroblocks, by forcing the motion vectors to the same value and the prediction residual to zero.

9. (Currently Amended) Coding device for implementing the process according to Claim 1, said device comprising an object extraction circuit (1) for providing a segmentation key defining the borders of the object, a non object-based circuit for ~~MPEG~~ coding (3) of the texture of the video object, a non object-based

CUSTOMER NO.: 24498
Serial No.: 09/808,463

PATENT
PF000020

circuit for ~~MPEG~~ coding of the segmentation key (2), a circuit for MPEG coding of a background image (5) so as to provide elementary streams, at least one circuit (4, 6, 7) for multiplexing the elementary streams so as to provide a programme stream (PS) or transport stream (TS).

10. (Currently Amended) Program stream (PS) or transport stream (TS) according to ~~the MPEG-2~~ a non object-based coding standard, such stream comprising an elementary stream (ES) for the coding of a video object, an elementary stream for the coding of a background image, an elementary stream for the coding of a segmentation key defining this video object.

11. (New) The process according to claim 4, wherein said step of coding the complete image comprises an image being split into blocks and blocks being coded using a Discrete Cosine Transformation giving DC and AC coefficients.

12. (New) The process according to claim 5, wherein said step of coding the complete image comprises an image being split into blocks and blocks being coded using a Discrete Cosine Transformation giving DC and AC coefficients.